

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings of claims in the application:

Listing of Claims:

1 1. (Currently amended) A method for distributing data among a plurality of
2 data storage systems comprising:
3 producing profile information for a first data object that is stored in a first data
4 storage system, said profile information comprising content-based information associated with
5 said first data object;
6 communicating said profile information from the first data storage system to at
7 least one second data storage system in said plurality of data storage systems;
8 calculating an interest metric at each of said at least one second data storage
9 systems based on said profile information and on selection criteria maintained at said each of
10 said at least one second data systems;
11 communicating said interest metrics from each of said at least one second data
12 storage systems to the first data storage system;
13 selecting at least one target second data storage system at the first data storage
14 system based upon the interest metrics; and
15 copying said first data object to each target second data storage system,
16 ~~said at least one second data storage system generating a selection indication~~
17 ~~based on said profile information and on selection criteria that is maintained at said each second~~
18 ~~data storage system;~~
19 ~~said at least one second data storage system communicating its selection~~
20 ~~indication to said first data storage system; and~~
21 ~~selectively copying said first data object to said at least one second data storage~~
22 ~~system based on its selection indication and on said profile information;~~

23 wherein said first data object is copied to said each target second data storage
24 system depending on content-based information associated with said first data object.

1 2. (Original) The method of claim 1 wherein said first data storage system
2 comprises a server component in communication with a data storage component.

1 3. (Original) The method of claim 2 wherein said second data storage
2 system comprises a server component in communication with a data storage component.

1 4. (Canceled)

1 5. (Currently amended) The method of claim 1 further comprising:
2 receiving interest metrics at said first data storage system ~~the selection indication~~
3 from each of a plurality of second data storage systems; ~~wherein said selection indication is an~~
4 ~~interest metric;~~
5 producing an ordered set of target second data storage systems from said plurality
6 of second data storage systems, ordered according to said interest metrics; and
7 communicating said first data object to the first N of said target second data
8 storage systems in said ordered set.

1 6. (Currently amended) The method of claim 1, further comprising: wherein
2 ~~said selection indication is an interest metric, said method further comprising:~~
3 communicating said first data object to ~~a second~~ said target second data storage
4 system if its interest metric exceeds a predetermined threshold.

1 7. (Currently amended) The method of claim 1, wherein said interest metric
2 ~~selection indication~~ indicates whether or not to communicate said first data object to said target
3 second data storage system.

1 8. (Currently amended) The method of claim 1-7 wherein if the interest
2 metric indicates not to copy said first data object ~~is not copied to a~~ to said target second data
3 storage system, then determining a replication site from among said second data storage systems

4 independently of content of said first data object and copying said first data object to said
5 replication site.

1 9. (Currently amended) The method of claim 18 wherein said selection
2 criteria are stored in said first data storage system, said method further comprising
3 communicating said first data object to said at least one target second data storage system based
4 on said interest metric and a predetermined criterion. ~~profile information and on said selection~~
5 ~~criteria.~~

1 10. (Original) The method of claim 9 further comprising additional selection
2 criteria for an additional second data storage system, said method further comprising
3 communicating said first data object to said additional second data storage system based on said
4 profile information and said additional selection criteria.

1 11. (Previously presented) The method of claim 18 wherein said selection
2 criteria are stored in a selection server system separate from said first data storage system and
3 from said second data storage system, said method further comprising:
4 communicating said profile information to said selection server system; and
5 receiving a selection indication from said selection server system,
6 wherein said first data object is selectively communicated to said second data
7 storage system depending on said selection indication.

1 12. (Currently amended) A distributed data storage system comprising a
2 plurality of data servers, each data server comprising:
3 a client interface component configured for communication with one or more
4 clients to exchange data;
5 a data storage interface component configured for data communication with a data
6 storage component; and
7 a data processing component configured to:

8 produce profile information associated with a first data object that is
9 stored in said data storage component, said profile information comprising content-based
10 information associated with content of said first data object;

11 communicate said profile information to a plurality of candidate data
12 servers;

13 generate, at each of said plurality of candidate data servers, ~~a selection~~
14 ~~indication~~ an interest metric based on the profile information and selection criteria
15 maintained at each of said plurality of candidate data servers;

16 receive ~~the selection indication by~~ interest metrics at said data storage
17 component from each of said candidate data servers; and

18 copy said first data object to one or more of said candidate data servers
19 based on the interest metrics ~~selection indications~~ received from said candidate data
20 servers,

21 wherein an interest metric ~~selection indication~~ is produced by a candidate data
22 server and is based on selection criteria stored in said candidate data server and on said profile
23 information.

1 13-14. (Canceled)

1 15. (Currently amended) The data storage system of claim 12 wherein said
2 ~~selection indication~~ interest metrics ~~are~~ ~~is a~~ ~~binary indicators~~ that indicates whether or not to
3 copy said first data object to each of said candidate data servers. ~~second data server.~~

1 16-17. (Canceled)

1 18. (Currently amended) A method for distributing data among a plurality of
2 data storage systems comprising:

3 obtaining selection criteria in a first data storage system;

4 producing profile information for a first data object that is stored in said first data
5 storage system, said profile information comprising content-based information associated with
6 said first data object;
7 communicating the selection criteria and the profile information to at least one
8 second data storage system;
9 generating, at said at least one second data storage system, an interest metric
10 selection-indication-based on the selection criteria and the profile information;
11 receiving the selection-indication by interest metric at the first data storage
12 system from said at least one second data storage system; and
13 selecting at least one target second data storage system at the first data storage
14 system based upon the interest metric; and
15 copying said first data object to said at least one target second data storage
16 system.
17 ~~selectively copying said first data object to said at least one second data storage~~
18 ~~system based on said selection-indication.~~

1 19. (Original) The method of claim 18 further comprising receiving, at said
2 first data storage system, said selection criteria from one or more data storage systems other than
3 said first data storage system.

1 20. (Currently amended) A data system comprising:
2 a plurality of data centers; and
3 a plurality of client systems in data communication with said data centers,
4 each data center comprising:
5 a data storage component;
6 a file server component operable to exchange data between a client system
7 and said data storage component;
8 a replicator component;
9 a receiver component; and
10 file selection criteria,

11 wherein said replicator component is operable to produce profile data for a
12 data object that is to be replicated among one or more candidate target data centers, to
13 communicate said profile data to at least one of said candidate target data centers, to
14 receive an interest metric ~~selection indication~~ from each of said candidate target data
15 centers, and to selectively communicate said data object to a candidate target data center
16 based on its interest metric ~~selection indication~~; said profile data representative of
17 content of said data object,

18 wherein said receiver component is operable to receive the profile data
19 information from a source data center and to generate an interest metric ~~selection~~
20 ~~indication~~ based on the profile data and selection criteria maintained in said receiver
21 component, said receiver component further operable to communicate the ~~selection~~
22 ~~indication~~ interest metric to said source data center for selectively copying said data
23 object.

1 21. (Currently amended) The system of claim 20 wherein said ~~selection~~
2 ~~indication is an interest metric that is determined based on said file selection criteria and on said~~
3 ~~profile data, wherein said replicator component is further operable to communicate said data~~
4 ~~object to a candidate data center based on its interest metric, wherein said candidate target data~~
5 ~~centers are ordered to produce an ordered set based on their corresponding interest metrics and~~
6 ~~said replicator component is further operable to communicate said data object to the first N target~~
7 ~~data centers selected from said ordered set.~~

1 22. (Currently amended) The system of claim 20 wherein said ~~selection~~
2 ~~indication is an interest metric that is determined based on said file selection criteria and on said~~
3 ~~profile data, wherein said replicator component is further operable to communicate said data~~
4 ~~object to a candidate data center based on its interest metric, said replicator component~~
5 ~~communicates said data object to a candidate target center if its interest metric exceeds a~~
6 ~~predetermined threshold.~~

23. (Currently amended) The system of claim 20 wherein said ~~selection indication-interest metric~~ is an indication of whether or not to communicate said data object to said candidate target data center.

24. (Currently amended) A data system comprising:
a plurality of data centers; and
a plurality of client systems in data communication with said data centers,
each data center comprising:
a data storage component;
a file server component operable to exchange data between a client system and said data storage component;
a replicator component; and
a collection of selection criteria comprising selection criteria provided from other data centers,
wherein said replicator component is operable to produce profile data for a data object that is to be replicated among one or more candidate target data centers, to communicate said profile data to at least one of said candidate target data centers, and to selectively communicate said data object to said candidate target data centers based on a ~~selection-indication-an interest metric~~ corresponding to each of said candidate target data centers, said profile data representative of content of said data object, and
wherein at least one of said candidate target data centers is operable to receive the profile data, calculate the ~~selection-indication-interest metric~~ based on the profile data and said selection criteria, and communicate said ~~selection-indication-interest metric~~ to said replicator component.

25. (Currently amended) The system of claim 24 wherein said replicator module is operable to produce based on said collection selection criteria and on said profile data a plurality of interest metrics, each interest metric corresponding to a data center, wherein said candidate target data centers are ordered to produce an ordered set based on their corresponding

interest metrics, wherein said replicator component is further operable to communicate said data object to the first N target data centers selected from said ordered set.

26. (Currently amended) The system of claim 24 wherein ~~said replicator module is operable to produce based on said collection selection criteria and on said profile data a plurality of interest metrics, each interest metric corresponding a data center,~~ said replicator component communicates said data object to a candidate target center if its interest metric exceeds a predetermined threshold.

27-28. (Canceled)

29. (New) A method for distributing data to a plurality of data storage systems in accordance with content-based interest metrics corresponding to each of said data storage systems, the method comprising:

- producing a profile containing information representative of the content of a first data object stored in a first data storage system;
- receiving interest information from a plurality of distinct second data storage systems specifying one or more categories of information requested for storage at each of said plurality of second data storage systems;
- calculating interest metrics for each of the plurality of second data storage systems with respect to the first data object using the profile information and the interest information;
- selecting one or more target second data storage systems to receive the first data object based upon their respectively calculated interest metrics; and
- copying said first data object from said first data storage system to said one or more target second data storage systems.

30. (New) A method for distributing data among a plurality of data storage systems comprising:

3 receiving profile information representative of the content of a first data object
4 stored in a first data storage system at a directory server;
5 receiving at the directory server interest information from a plurality of second
6 data storage systems specifying one or more categories of information requested for storage at
7 each of said plurality of second data storage systems;
8 calculating at the directory server interest metrics for each of the plurality of
9 second data storage systems with respect to the first data object using the profile information and
10 the interest information;
11 transmitting said interest metrics from the directory server to the first data storage
12 system;
13 selecting at the first data processing system one or more target second data
14 storage systems to receive the first data object based upon the interest metrics calculated at the
15 directory server; and
16 copying said first data object to said one or more target second data storage
17 system.

1 31. (New) The method of claim 1, further comprising updating metadata at
2 the first data storage system with an identifier of the at least one target second data storage
3 system to which the first data object is copied.

1 32. (New) The data storage system of claim 12 wherein said data processing
2 component is configured to update metadata stored by said data storage component with
3 identifiers of the one or more candidate data servers to which the first data object is copied.

1 33. (New) The method of claim 18 further comprising updating metadata at
2 the first data storage system with an identifier of the at least one target second data storage
3 system to which the first data object is copied.